

Attorney Docket No.: 40296-0048

Applicant:

Seon Yong CHA

Confirmation No.: 1788

Appl. No.:

10/734,294

Examiner: Thomas L. Dickey

Filing Date: December 15, 2003

Art Unit: 2826

Title:

MAGNETORESISTIVE RANDOM ACCESS MEMORY, AND

MANUFACTURING METHOD THEREOF

## INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.56 and 37 CFR §1.97

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08A is a listing of documents known to applicant in order to comply with applicant's duty of disclosure pursuant to 37 C.F.R. §1.56 and §1.97. A copy of the listed documents are being submitted to comply with the provisions of 37 C.F.R. §1.97-1.99.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or is considered to be material to patentability as defined in 37 C.F.R. §1.56(b). Applicant does not waive any rights to take any action that would be appropriate to antedate or otherwise remove as a competent reference any document that is determined to be a prima facie prior art reference against the claims of the present application.

## **RELEVANCE STATEMENT**

The foregoing documents came to the Applicant's attention during a search of the corresponding German patent application. A copy of the Notice of Rejection from the German Patent Office is attached.



Based on 37 CFR 1.97(i), Applicants request that the references cited on the attached SB/08A form be placed in the file and Applicant acknowledges that the references cited will not be considered by the Examiner.

Date:

Date.

Heller Ehrman LLP 1717 Rhode Island Avenue, NW Washington, D.C. 20036 Telephone: (202) 912-2000

Facsimile:

(202) 912-2020

Respectfully submitted,

Johnny A. Kumar Attorney for Applicant

Reg. No.: 34,649

Customer No. 26633

PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

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Substitute for form 1449A/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 2

	Complete if Known	•
Application Number	10/734,294	
Filing Date	December 15, 2003	
First Named Inventor	Seon Yong CHA	
Group Art Unit	2826	
Examiner Name	Thomas L. Dickey	
Attorney Docket Number	40296-0048	

U.S. PATENT DOCUMENTS					
Examiner	Cite No.1	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
Initials *		Number - Kind Code <sup>2</sup> (if known)	MM-DD-YYYY		
	C01	5,838,608	11/17/1998	Zhu et al.	
	C02	6,379,978 B2	4/30/2002	Goebel et al.	
	C03	US 2002/0093845 A1	7/18/2002	Matsuoka et al.	
	C04	US 2002/0132464 A1	9/19/2002	Lee	
	C05	US 2002/0140016 A1	10/3/2002	Cha	_

FOREIGN PATENT DOCUMENTS						
		Foreign Patent Document			Pages, Columns, Lines, Where	S,
Examiner Initials*	Cite No.	Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> ( <i>if known</i> )	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Relevant Passages or Relevant Figures Appear	T⁵
	C06	EP 1 329 895 A5	7/23/2003	Samsung Electronics Co. Ltd.		
	C07	DE 10104265	8/22/2002	Infineon Technologies AG		
	C08	WO 03032372	4/17/2003	Zhang Guobiao		

		,
Examiner Signature	Date Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional) . <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="www.uspto.gov">www.uspto.gov</a> or MPEP 901.04.
<sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449A/PTO					Complete if Known		
			<b></b>	OL COURT	Application Number	10/734,294	
				SCLOSURE	Filing Date	December 15, 2003	
	STATEMENT BY APPLICANT			PPLICANT	First Named Inventor	Seon Yong CHA	
					Group Art Unit	2826	
		(use as mai	ny sheets a	s necessary)	Examiner Name	Thomas L. Dickey	
_	Sheet	2	of	2	Attorney Docket Number	40296-0048	

OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T 2
	C09	XIANGDON CHEN et al., "Improved Hot-Carrier and Short-Channel Performance in Vertical nMOSFETs With Graded Channel Doping", IEEE Transactions on Electron Devices, 2002, p. 1962-1967, Vol. 49, No. 11	
	C10	W.J. GALLAGHER et al., "Microstructured magnetic tunnel junctions (invited)", J. Appl. Phys., 1997, pp. 3741-3746, Vol. 81, No. 8	
	C11	GITAE JEONG et al., "Magnetoresistance RAM with Self Reference Sensing. In: IEEE International Solid-State Circuits Conference, 9-13 Feb. 2003, S.1-8; "dual gate polysilicon", "Serially connected MTJ", A 0.24um 2.0V 1T1MTJ 16kb NV	
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	C13	K. McSTAY et al., "Vertical Pass Transistor Design for Sub-100nm DRAM Technologies", IEEE, Symposium On VLSI Technology Digests of Technical Papers, 2002, pp. 180-181	
	C14	Q. OUYANG et al., "Performance Enhancement in Vertical Sub-100NM NMOSFETS with Graded Doped Channels", IEEE, 2002, Fourth IEEE International Caracas Conference on Devices, Circuits and Systems, Aruba, April 17-19, 2002, pp. DO16-1, DO16-6	
	C15	WILLIAM REOHR et al., "Memories of Tomorrow", IEEE Circuits and Devices Magazine, September 2002, pp. 17-27	
	C16	G. SHRIVASTAV et al., "Performance Optimization of 60nm Channel Length Vertical MOSFETs Using Channel Engineering", IEEE, 2000, pp. 475-478	

Examiner	Date
Signature	Considered

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